CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

An ISO 9001:2008 Certified Company

Job No.: CTCE/BBMP/WNo.14/KRIDL/CEMENT/2012-13

Date: 07.03.2013

TEST REPORT

CLIENT	:	**Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
AGENCY	:	**Technical Manager (West),** KRIDL, Bangalore.
NAME OF THE WORK	:	Construction of cement concrete drains at Mahalakshminagara Main Roads in Ward No. 14, T. Dasarahalli Sub Division, BBMP, Bangalore.
REFERENCE	:	BBMP/DZ/AEE/TDSD/PR/510/9/2012-13 Dated: 04.03.2013
SAMPLE ID	:	CEMENT
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-1989
1	a) Initial Setting Time	IS-4031 (Part -5)	203 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	488 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part 3) by the Le-Chatelier method	1 mm	Not more than 10 mm
3	Standard Consistency	IS-4031 (Part -4)	29.00 %	-

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Job No.: CTCE/BBMP/WNo.14/KRIDL/SAND/2012-13 : 07.03.2013

TEST REPORT ON FINE AGGREGATES (SAND)
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager (West),** KRIDL, Bangalore.

Name of Work : Construction of cement concrete drains at Mahalakshminagara Main Roads in Ward No. 14, T. Dasarahalli Sub Division, BBMP, Bangalore.

Reference : BBMP/DZ/AEE/TDSD/PR/510/9/2012-13 Dated: 04.03.2013

Date of Testing : 07.03.2013

Material : Sand Total Wt. of Aggregates in gms **2000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	83	4.15	4.15	95.9	90-100
2.36	246	12.30	16.45	83.6	75-100
1.18	398	19.90	36.35	63.7	55-90
600 Micron	521	26.05	62.40	37.6	35-59
300 Micron	476	23.80	86.20	13.8	8-30
150 Micron	198	9.90	96.10	3.9	0-10

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Job No.: CTCE/BBMP/WNo.14/KRIDL/AGG/2012-13 : 07.03.2013

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager (West),** KRIDL, Bangalore.

Name of Work : Construction of cement concrete drains at Mahalakshminagara Main Roads in Ward No. 14, T. Dasarahalli Sub Division, BBMP, Bangalore.

Reference : BBMP/DZ/AEE/TDSD/PR/510/9/2012-13 Dated: 04.03.2013

Date of Testing : 07.03.2013

Material : 40mm Aggregates

Total Wt. of Aggregates in gms **25300**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	995	3.93	3.93	96.07	95-100
20	16023	63.33	67.26	32.74	30-70
10	5382	21.27	88.54	11.46	10-35
4.75	2625	10.38	98.91	1.09	0-5

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Job No.: CTCE/BBMP/WNo.14/KRIDL/STEEL/2012-13 09.03.2013

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
Name of the work	:	Construction of cement concrete drains at Mahalakshminagara Main Roads in Ward No. 14, T. Dasarahalli Sub Division, BBMP, Bangalore.
Reference	:	BBMP/DZ/AEE/TDSD/PR/510/9/2012-13 Dated: 04.03.2013
Date of Test	:	09.03.2013
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm²	Tensile strength (Ultimate stress) N/mm²	Elongation percent gauge length		
1	8	0.40	514	548	12.45	O.K	O.K
2	10	0.62	517	551	12.70	O.K	O.K
3	12	0.89	520	554	12.95	O.K	O.K

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Job No.: CTCE/BBMP/WNo.14/KRIDL/CUBE/2012-13 10.04.2013

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
Agency	: **Technical Manager (West),** KRIDL, Bangalore.
Name of the work	: Construction of cement concrete drains at Mahalakshminagara Main Roads in Ward No. 14, T. Dasarahalli Sub Division, BBMP, Bangalore.
Reference	: BBMP/DZ/AEE/TDSD/PR/510/9/2012-13 Dated: 04.03.2013
Sample ID	: RCC Drain Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	13.03.2013	10.04.2013	8.254	496.5	22.07
2	13.03.2013	10.04.2013	8.369	515.6	22.92
3	13.03.2013	10.04.2013	8.127	475.9	21.15

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TEST REPORT ON CONCRETE CUBES

Client : **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager (West),** KRIDL, Bangalore.

Name of the work : Construction of cement concrete drains at Mahalakshminagara Main Roads in Ward No. 14, T. Dasarahalli Sub Division, BBMP, Bangalore.

Reference : BBMP/DZ/AEE/TDSD/PR/510/9/2012-13 Dated: 04.03.2013

Sample ID : RCC Drain Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	16.03.2013	13.04.2013	8.246	498.6	22.16
2	16.03.2013	13.04.2013	8.085	470.9	20.93
3	16.03.2013	13.04.2013	8.136	485.7	21.59

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